

AMENDMENTS TO THE CLAIMS

Please replace all prior versions of the claims with the following claim listing:

Claims:

1. (Currently Amended) A planting assembly comprising:
 - a frame, a furrow opening mechanism, a seed tube for directing a seed into a furrow, a liquid source, a liquid delivery conduit having a delivery end, and a furrow closing mechanism;
 - an adapter configured for mounting to the seed tube; and
 - a spray arm including a proximal end configured for removably mounting to the adapter, a central portion, and a distal end, the central portion extending rearward such that the distal end is disposed above the furrow; and
 - wherein the liquid delivery conduit is in fluid communication with the liquid source and the delivery end is adjacent to the distal end.
2. (Original) The planting assembly of claim 1, wherein the spray arm is configured such that the liquid is dispensed from the delivery end downwardly and forwardly toward the furrow aft of the seed tube.
3. (Original) The planting assembly of claim 1, further comprising a spray nozzle disposed on the distal end of the spray arm in fluid communication with the delivery end.

4. (Currently Amended) ~~The planting assembly of claim 1, A planting assembly comprising:~~

a frame, a furrow opening mechanism, a seed tube for directing a seed into a furrow, a liquid source, a liquid delivery conduit having a delivery end, and a furrow closing mechanism;

an adapter configured for mounting to the seed tube; and

a spray arm including a proximal end configured for mounting to the adapter, a central portion, and a distal end, the central portion extending rearward such that the distal end is disposed above the furrow;

wherein the liquid delivery conduit is in fluid communication with the liquid source and the delivery end is adjacent to the distal end; and

wherein the spray arm further comprises a deflector shield disposed on the central portion and extending downwardly toward the furrow.

5. (Original) The planting assembly of claim 1, wherein the spray arm is configured such that the liquid is dispensed from the delivery end substantially downwardly.

6. (Currently Amended) The planting assembly of claim 1, further comprising:

a seed positioning device for positioning the seed within the furrow; and

a bracket configured for mounting the seed positioning device to the frame, the bracket being mounted to the frame and the seed positioning device being mounted to the bracket; and

wherein the proximal end of the spray arm is further configured for mounting to the bracket.

7. (Original) The planting assembly of claim 6, wherein the spray arm is configured such that the liquid is dispensed substantially downwardly ~~and forwardly~~ into the furrow aft of the seed positioning device.

8. (Original) The planting assembly of claim 1, wherein the liquid is selected from a group consisting of insecticides, herbicides, fungicides, nematicides, fertilizers, starters, inoculants, micronutrients, trace minerals, and water.

9. (Currently Amended) The planting assembly of claim 1, further comprising:

a seed positioning device for positioning the seed within the furrow, the seed positioning device being mounted to the seed tube; ~~and~~

wherein the adapter is further configured for mounting to the seed positioning device.

10. (Currently Amended) A method of application of a liquid to a furrow performed in conjunction with the operation of a planting assembly, the planting assembly having a frame, a furrow opening mechanism, a seed tube for directing [[a]] seed into the furrow, a liquid source, a liquid delivery conduit having a delivery end, a seed positioning device attached to the frame with a bracket, and a furrow closing mechanism, the method comprising the steps of:

providing a bracket configured to be attached to the planting assembly;

providing a spray arm including a proximal end configured for mounting configured to be removably mounted to the bracket;

forming the a furrow with the planting assembly;

directing a seed into the furrow;

directing the a liquid from the liquid source substantially downwardly into at least a portion of the furrow aft of the seed tube, thereby applying the liquid to the seed, and the furrow, and an area outside the furrow; and

closing the furrow over the seed.

11. (Currently Amended) The method of application of claim 10, wherein the directing the liquid step further comprises:

directing spraying the liquid forwardly substantially downwardly into the furrow aft of the seed tube.

12. (Currently Amended) The method of claim 10, further comprising:

the step of positioning the seed in the furrow prior to applying the liquid.

13. (Original) The method of claim 10, wherein the liquid is selected from the group consisting of insecticides, herbicides, fungicides, nematicides, fertilizers, starters, inoculants, micronutrients, trace minerals, and water.

14. (Currently Amended) A planting assembly comprising:

a frame;

a seed guide;

a furrow opening mechanism configured to create a furrow;

a seed tube for directing a seed into [[a]] the furrow;

a liquid source;

a liquid delivery conduit having a delivery end;

a bracket designed to be mounted to the planting assembly;

~~a seed positioning device connected to the frame with a bracket; and~~

a furrow closing mechanism;

a spray arm including a proximal end ~~configured for mounting to the bracket~~, a central portion, and a distal end, the proximal end ~~being designed to be mounted to the bracket~~ and the central portion extending rearward toward a back end of the planting assembly such that the distal end is disposed above the furrow; and

a spray nozzle disposed near the distal end of the spray arm, the spray nozzle being in fluid communication with the delivery end of the liquid delivery conduit;

wherein the liquid delivery conduit is in fluid communication with the liquid source and the delivery end is disposed adjacent to the distal end.

15. (Original) The planting assembly of claim 14, wherein the spray arm is configured such that the liquid is dispensed from the delivery end downwardly toward the furrow aft of the seed tube.

16. (Original) The planting assembly of claim 15, wherein the spray arm is further configured such that the liquid is dispensed from the delivery end forwardly toward the furrow aft of the seed tube.

17. (Canceled)

18. (Original) The planting assembly of claim 14, wherein the spray arm is configured such that the liquid is dispensed from the delivery end substantially downwardly.

19. (Currently Amended) A planting assembly comprising:

a frame;

~~a seed guide;~~

a seed tube, supported by the frame, for directing seeds into a furrow;

a liquid source supported by the frame; and

a liquid delivery conduit having a delivery end;

a seed positioning device for positioning the seeds within the furrow;

means for securing the seed positioning device to the ~~frame~~ planting assembly;

and

a spray arm including a proximal end and a distal end, the proximal end being adjacent to supported by the means for securing and the distal end being disposed above the furrow; and

wherein the liquid delivery conduit is in fluid communication with the liquid source and the delivery end is adjacent to the distal end.

20. (Original) The planting assembly of claim 19, wherein the spray arm is removably secured to the means for securing.

21. (Currently Amended) A liquid application device for use with a planting assembly, the planting assembly having a frame, a furrow opening mechanism, a seed tube for directing a seed into a furrow, a liquid source, ~~a seed~~

~~positioning device for positioning a seed within a furrow, a bracket for connecting the seed positioning device to the frame, a liquid delivery conduit having a delivery end, and a furrow closing mechanism, the liquid application device comprising:~~

a bracket adapted for connection to the planting assembly; and

a spray arm including a proximal end, a distal end, and a central portion, the proximal end configured for mounting to be removably mounted to the bracket, a central portion, and a distal end, the central portion extending rearward such that the distal end [[is]] being disposed above the furrow; and

wherein the liquid delivery conduit is in fluid communication with the liquid source and the delivery end is adjacent to disposed near the distal end of the spray arm.

22. (Original) The liquid application device of claim 21, further comprising an adapter having a first side configured for mounting to the seed tube and a second side configured to removably receive the proximal end of the spray arm.

23. (Currently Amended) The liquid application device of claim 22, further comprising:

a hook portion and an extension defining a locking aperture extending from the second side of the adapter; and

a locking tab and a J-shaped extension disposed on the proximal end of the spray arm, the J-shaped portion configured to engage the adapter and the locking tab configured to removably engage the locking aperture; and

wherein the J-shaped portion is received within the hook portion and the locking tab is removably received within the locking aperture, thereby removably securing the spray arm to the adapter.

24. (Currently Amended) A liquid application device for use with a planting assembly having a frame, a furrow opening mechanism, a seed tube for directing a seed into a furrow, a liquid source, a liquid delivery conduit having a delivery end, and a furrow closing mechanism, the device comprising:

a spray arm including a proximal end configured for mounting to the planting assembly, a central portion, and a distal end, the central portion extending rearward such that the distal end is disposed above the furrow; and

a spray head configured to be telescopically received on the distal end of the spray arm; and

wherein the liquid delivery conduit is in fluid communication with the liquid source and the delivery end is adjacent to the distal end.

25. (Original) The liquid application device of claim 24, further comprising:

a plurality of projections disposed on opposing sides of the distal end of the spray head; and

a plurality of slots formed in the spray head, the plurality of slots being configured to receive at least one of the plurality of projections, so that the spray head is removably secured to the spray arm.

26. (Original) The liquid application device of claim 24, wherein the distal end of the spray arm is threadably secured to the spray head.

27. (Original) The liquid application device of claim 24, further comprising:

a plurality of apertures formed in the distal end of the spray arm;
at least a pair of corresponding apertures formed in the spray head, the pair of corresponding apertures spaced such that each of the pair of corresponding apertures aligns with a respective aperture on the spray arm simultaneously; and
securing means configured to pass through the aligned apertures and corresponding apertures, thereby removably securing the spray head to the spray arm.

28-31. (Canceled)

32. (New) The method of claim 10, further comprising:
providing a spray nozzle configured to be mounted on a distal end of the spray arm in fluid communication with the delivery end.

33. (New) The method of claim 32, further comprising:
adjusting a spray pattern of the spray nozzle.

34. (New) The planting assembly of claim 14, wherein the bracket is configured to be attached to the seed tube.

35. (New) The planting assembly of claim 10, wherein the bracket is configured to be attached to the frame.

36. (New) The planting assembly of claim 10, further comprising a seed positioning device for positioning the seed within the furrow, wherein the seed positioning device is supported by the bracket.

37. (New) The planting assembly of claim 36, further comprising a seed positioning device for positioning the seed within the furrow, wherein the bracket is configured to be attached to the planting assembly via the seed positioning device.

38. (New) The planting assembly of claim 19, wherein the securing means attaches the seed positioning device to the seed tube.

39. (New) The liquid application device of claim 21, further comprising: means for spraying the liquid into the furrow and into an area outside the furrow;

wherein the means for spraying is in fluid communication with the delivery end of the liquid delivery conduit.

40. (New) The liquid application device of claim 39, further comprising: means for adjusting the spray pattern of the spraying means.